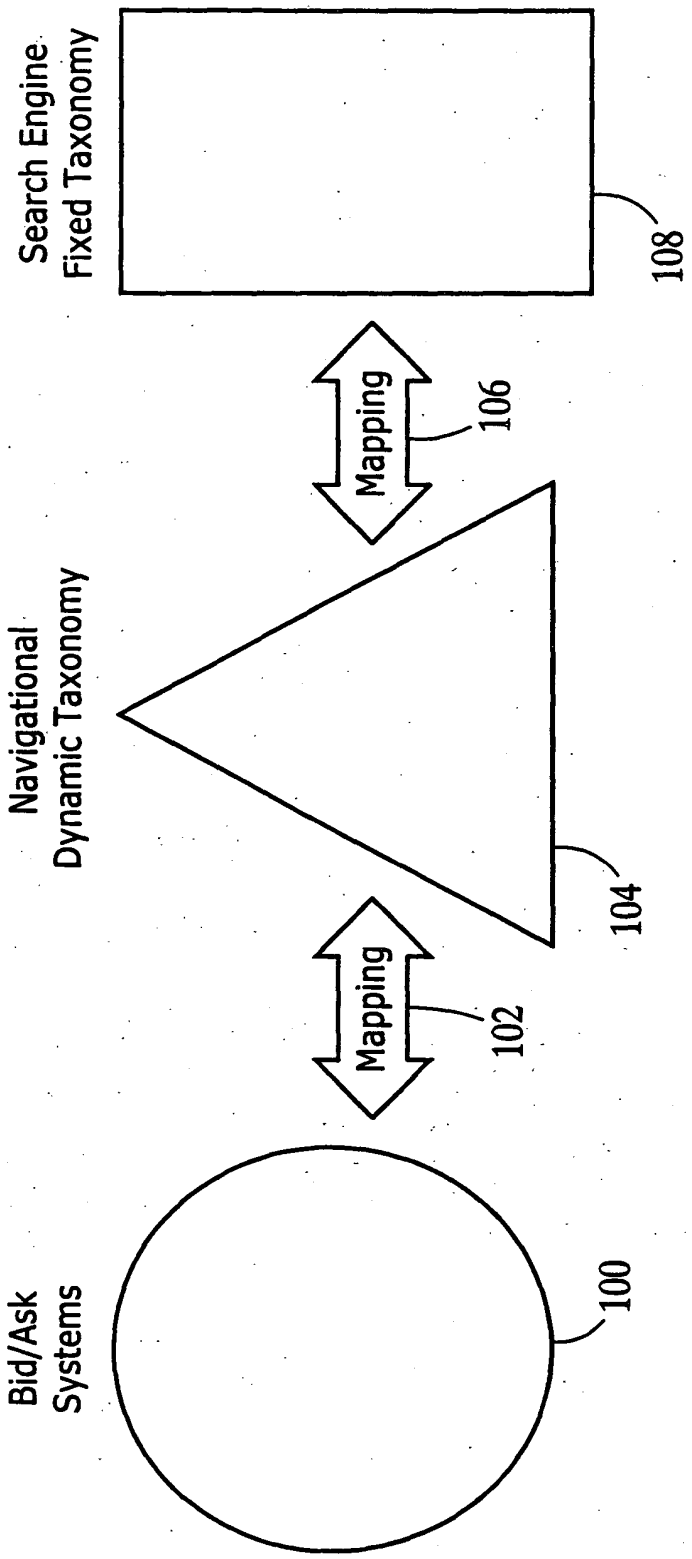
Search Engine
Fixed Taxonomy
108
Mapping
106
Navigational
Dynamic Taxonomy
104
Mapping
102
Bid/Ask
Systems
100

FIG. 1

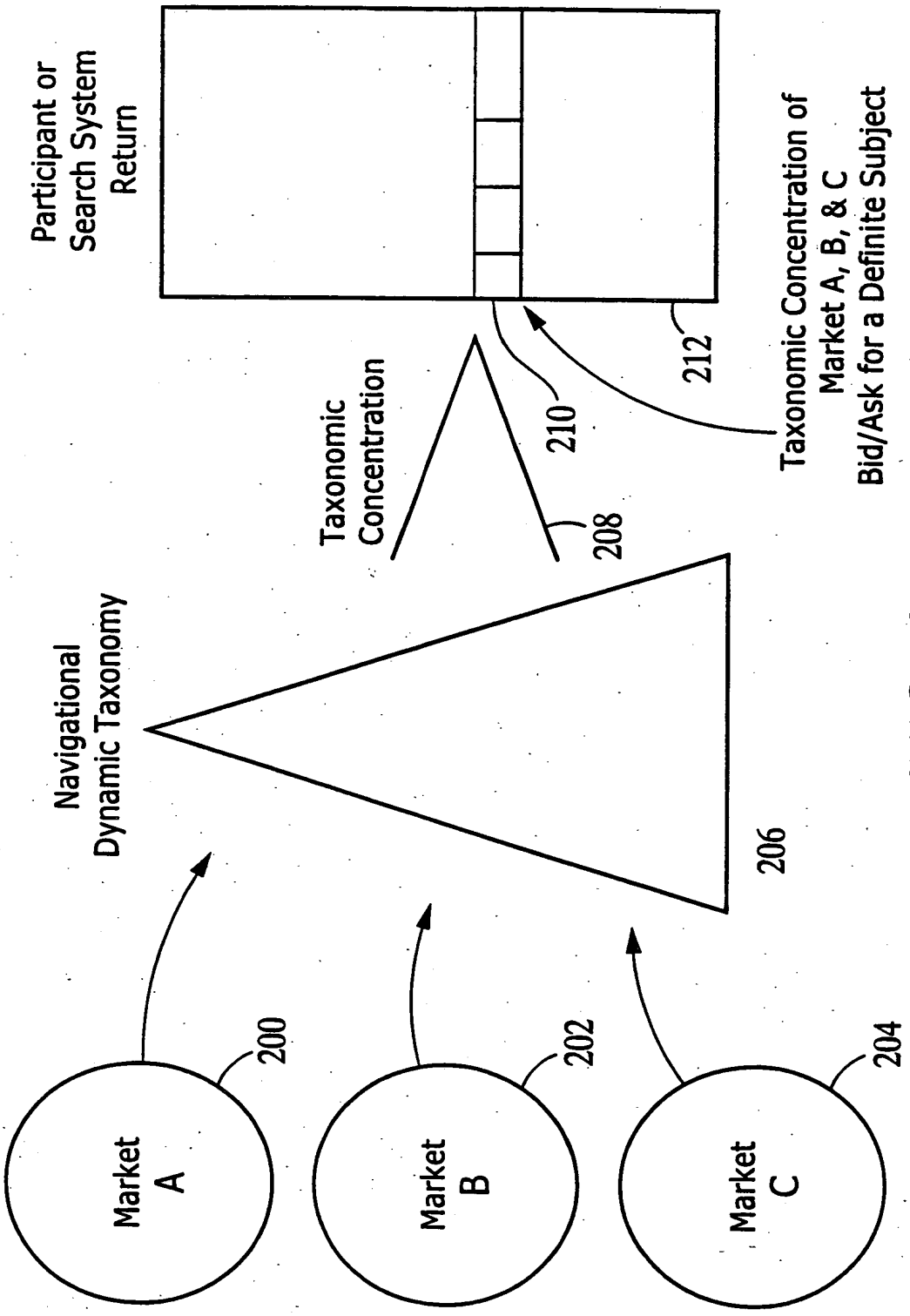
Participant or Search System Return
Taxonomic Concentration
Taxonomic Concentration of Market A, B, & C Bid/Ask for a Definite Subject
212
210
208
Navigational Dynamic Taxonomy
206
Market A
200
Market B
202
Market C
204

FIG. 2

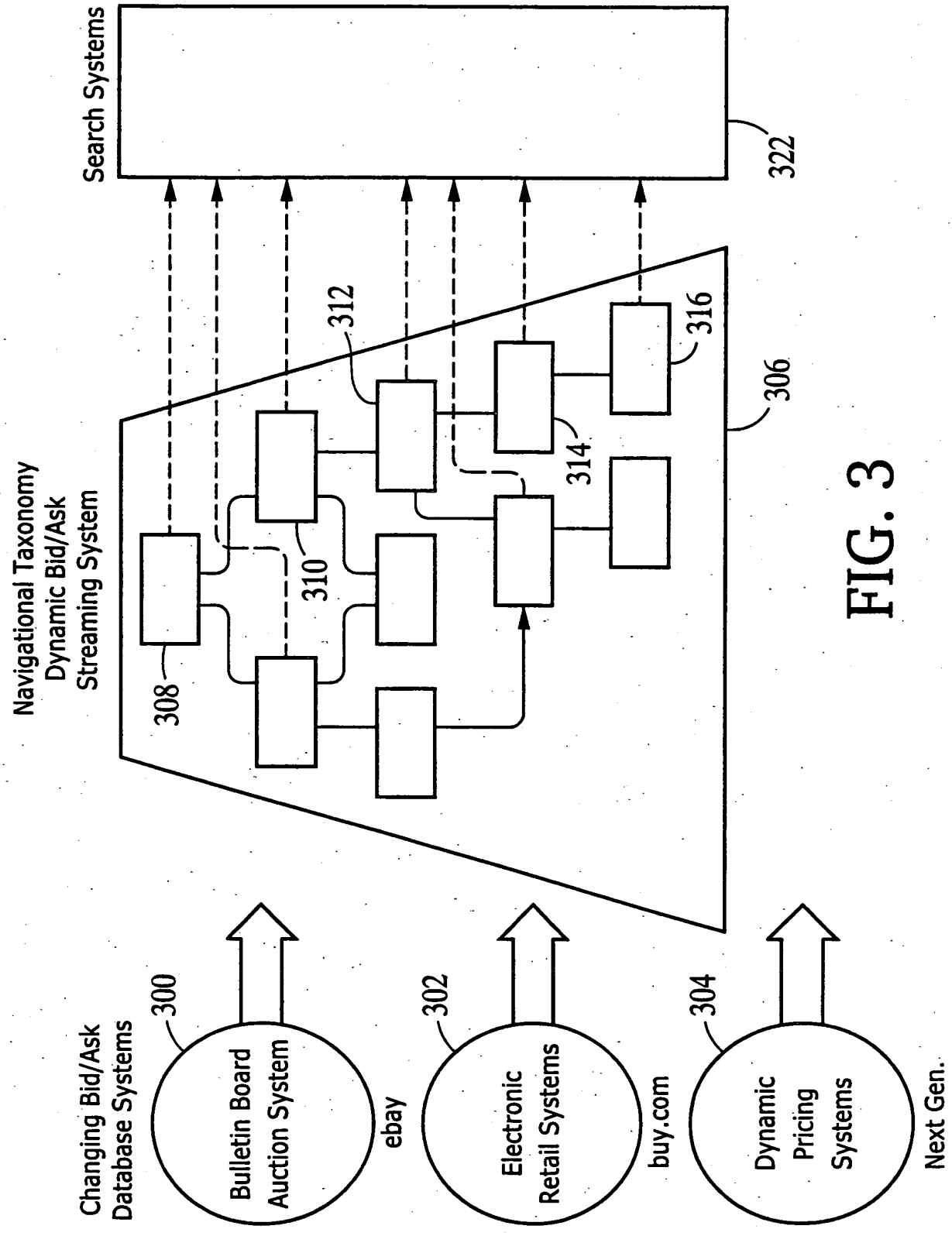
Search Systems
322
Navigational Taxonomy
Dynamic Bid/Ask
Streaming System
306
308
310
312
314
316
Changing Bid/Ask
Database Systems
300
Bulletin Board
Auction System
ebay
302
Electronic
Retail Systems
buy.com
304
Dynamic
Pricing
Systems
Next Gen.

FIG. 3

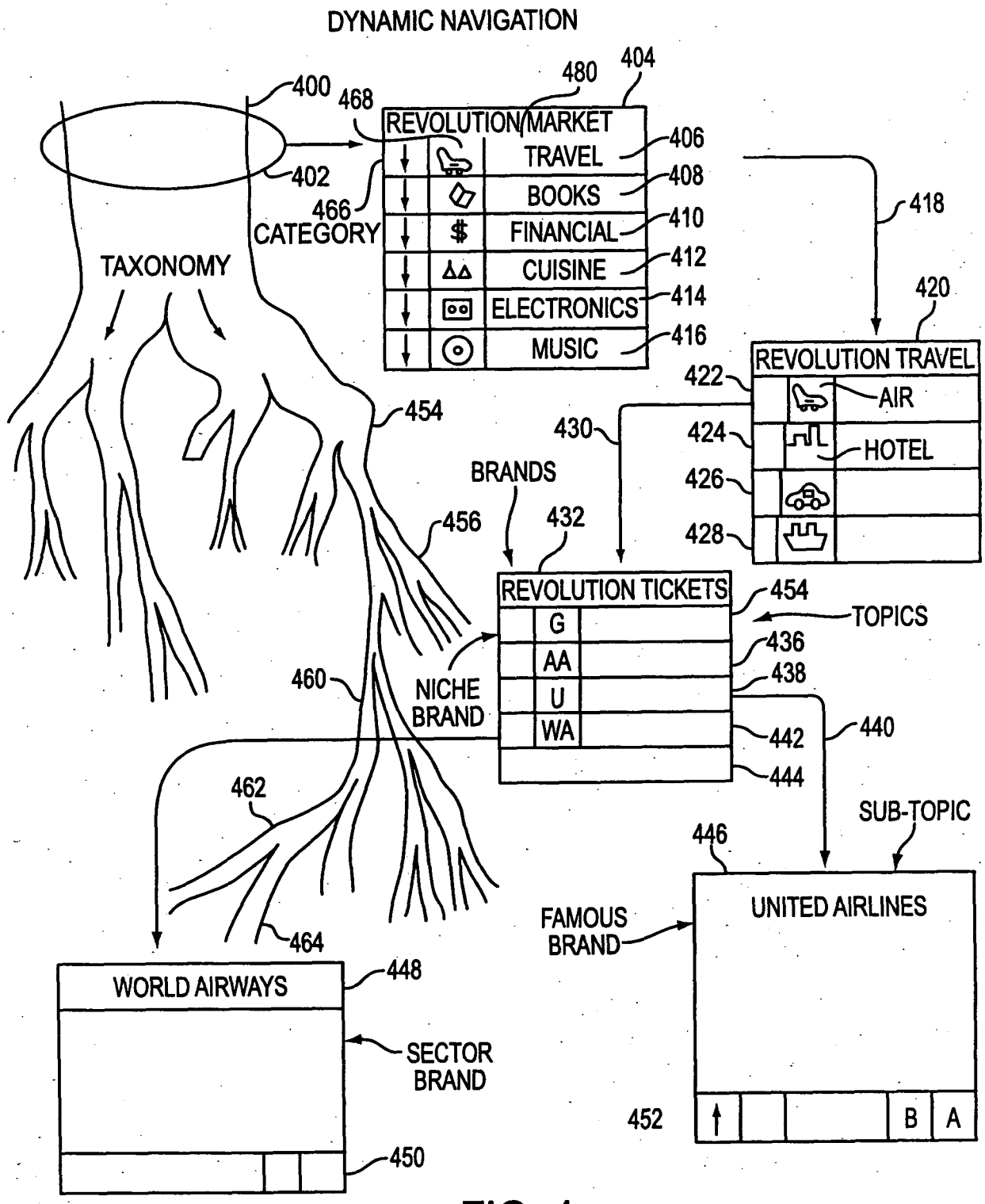
DYNAMIC NAVIGATION
400
402
404
406
408
410
412
414
416
418
420
422
424
426
428
430
432
436
438
440
442
444
446
448
450
452
454
456
460
462
464
466
468
480
TAXONOMY
CATEGORY
REVOLUTION/MARKET
TRAVEL
BOOKS
FINANCIAL
CUISINE
ELECTRONICS
MUSIC
REVOLUTION TRAVEL
AIR
HOTEL
BRANDS
REVOLUTION TICKETS
G
AA
U
WA
TOPICS
NICHE BRAND
SUB-TOPIC
FAMOUS BRAND
UNITED AIRLINES
WORLD AIRWAYS
SECTOR BRAND
B
A

FIG. 4

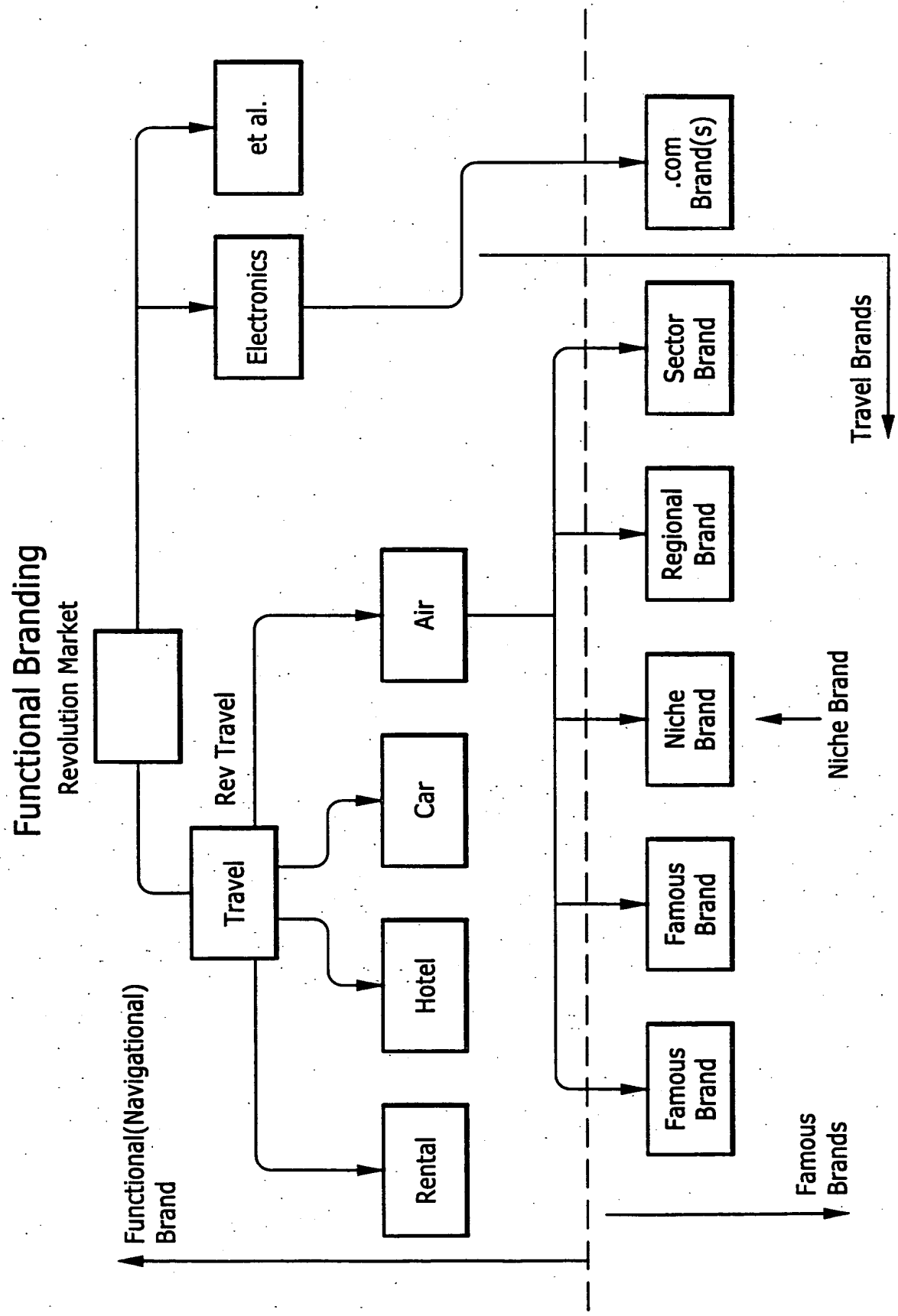
Functional Branding
Revolution Market
Rev Travel
Travel
Air
Car
Hotel
Rental
et al.
Electronics
.com Brand(s)
Sector Brand
Regional Brand
Niche Brand
Famous Brand
Famous Brand
Travel Brands
Niche Brand
Famous Brands
Functional(Navigational) Brand

FIG. 5

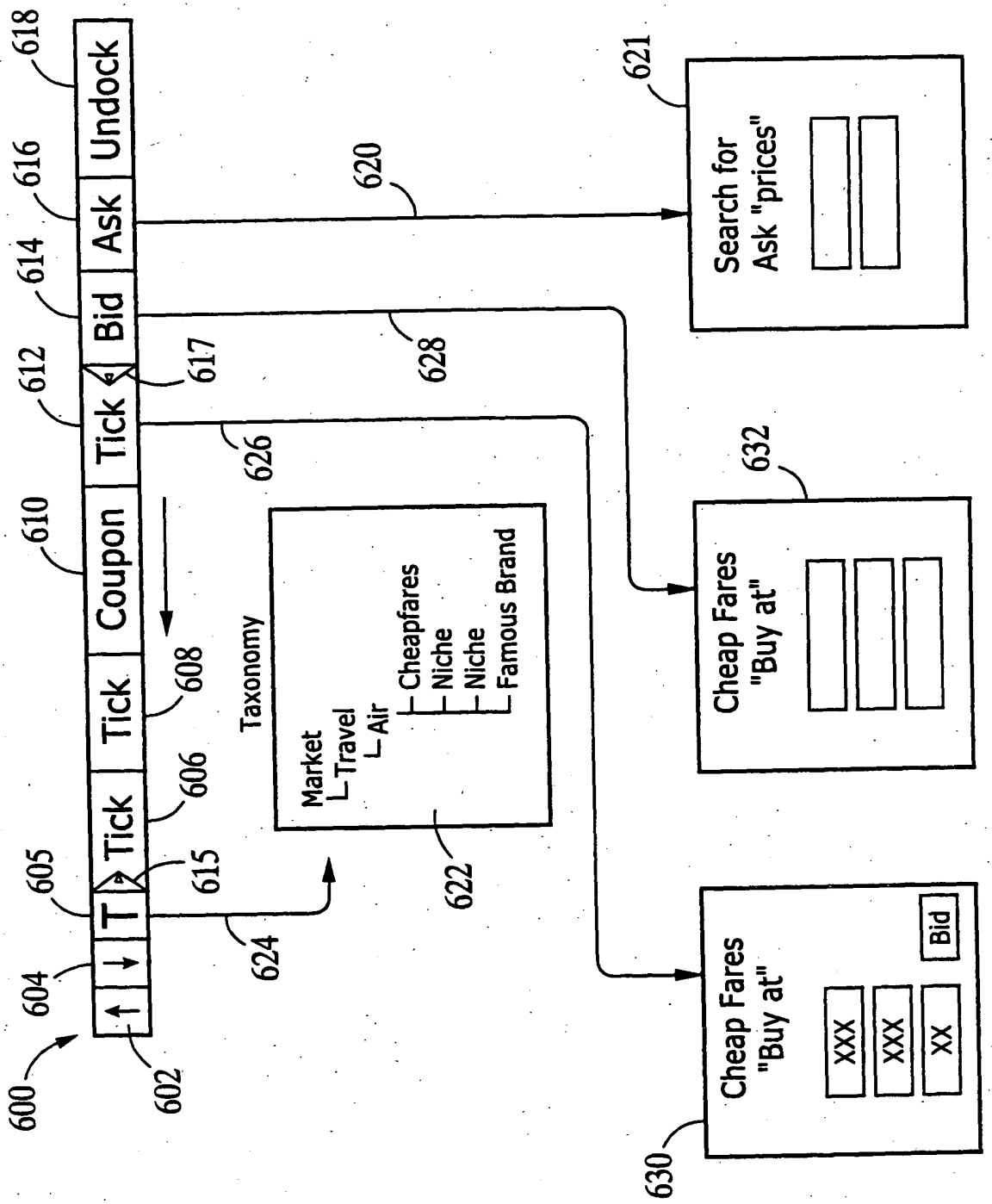
600
602
604
605
606
608
610
612
614
616
618
620
621
622
624
626
628
630
632
615
617
Undock
Ask
Bid
Tick
Coupon
Tick
Tick
T
Search for
Ask "prices"
Cheap Fares
"Buy at"
Cheap Fares
"Buy at"
XXX
XXX
XX
Bid
Taxonomy
Market
Travel
Air
Cheapfares
Niche
Niche
Famous Brand

FIG. 6

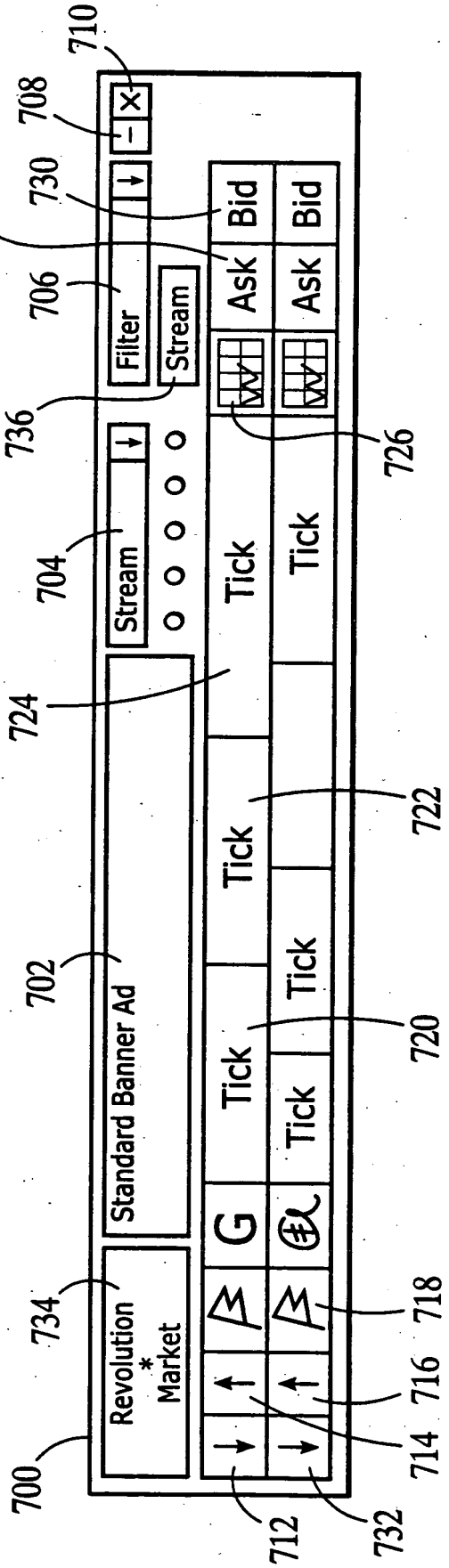
700
702
704
706
708
710
712
714
716
718
720
722
724
726
728
730
732
734
736
Revolution * Market
Standard Banner Ad
Stream
Filter
Stream
Tick
Tick
Tick
Tick
Tick
Tick
Ask
Ask
Bid
Bid

FIG. 7

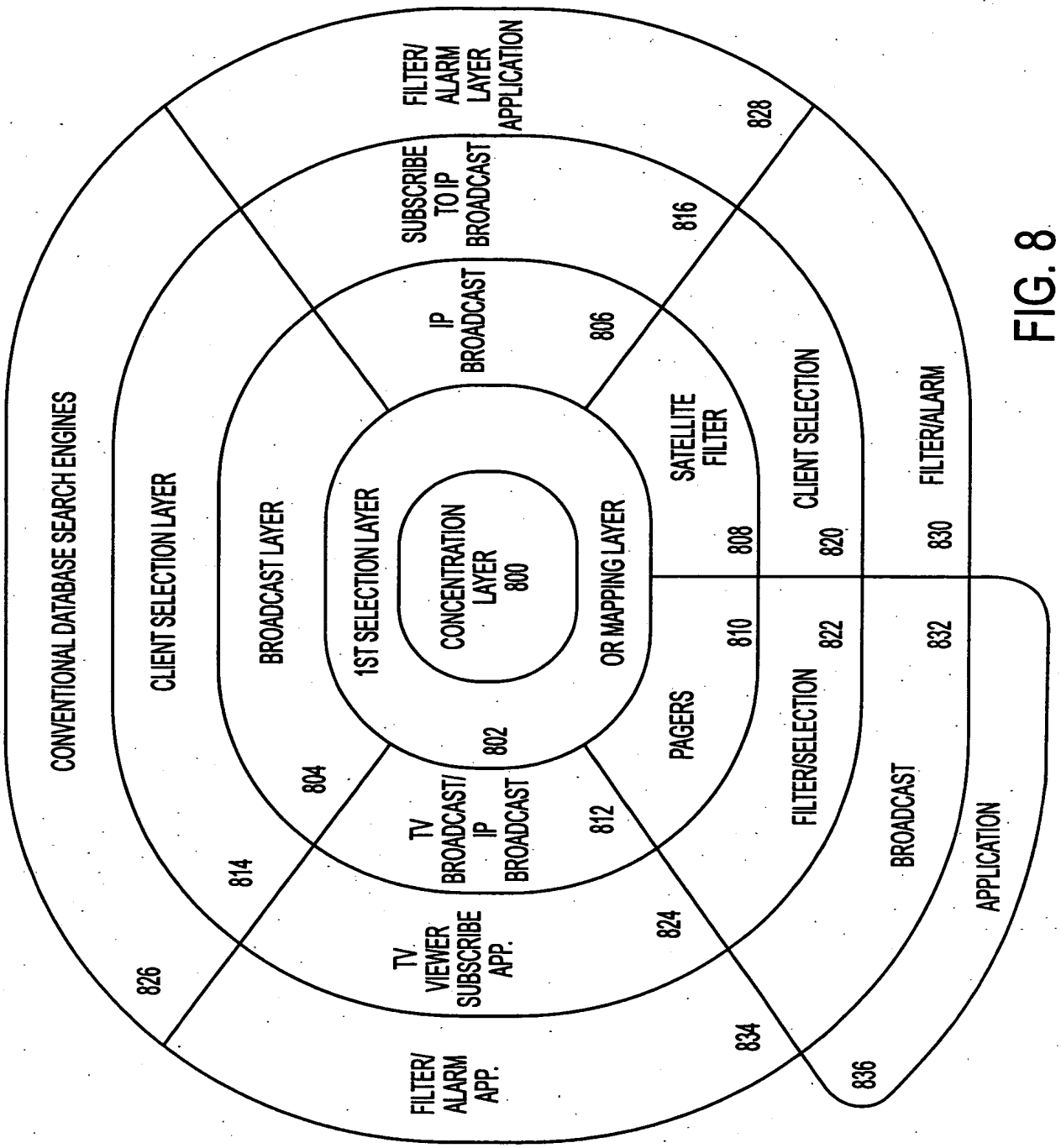
CONVENTIONAL DATABASE SEARCH ENGINES
CLIENT SELECTION LAYER
BROADCAST LAYER
1ST SELECTION LAYER
CONCENTRATION LAYER 800
OR MAPPING LAYER
IP BROADCAST
SATELLITE FILTER
CLIENT SELECTION
FILTER/ALARM
FILTER/ALARM LAYER APPLICATION
SUBSCRIBE TO IP BROADCAST
TV BROADCAST/ IP BROADCAST
PAGERS
FILTER/SELECTION
BROADCAST
APPLICATION
TV VIEWER SUBSCRIBE APP.
FILTER/ ALARM APP.
802
804
806
808
810
812
814
816
820
822
824
826
828
830
832
834
836

FIG. 8

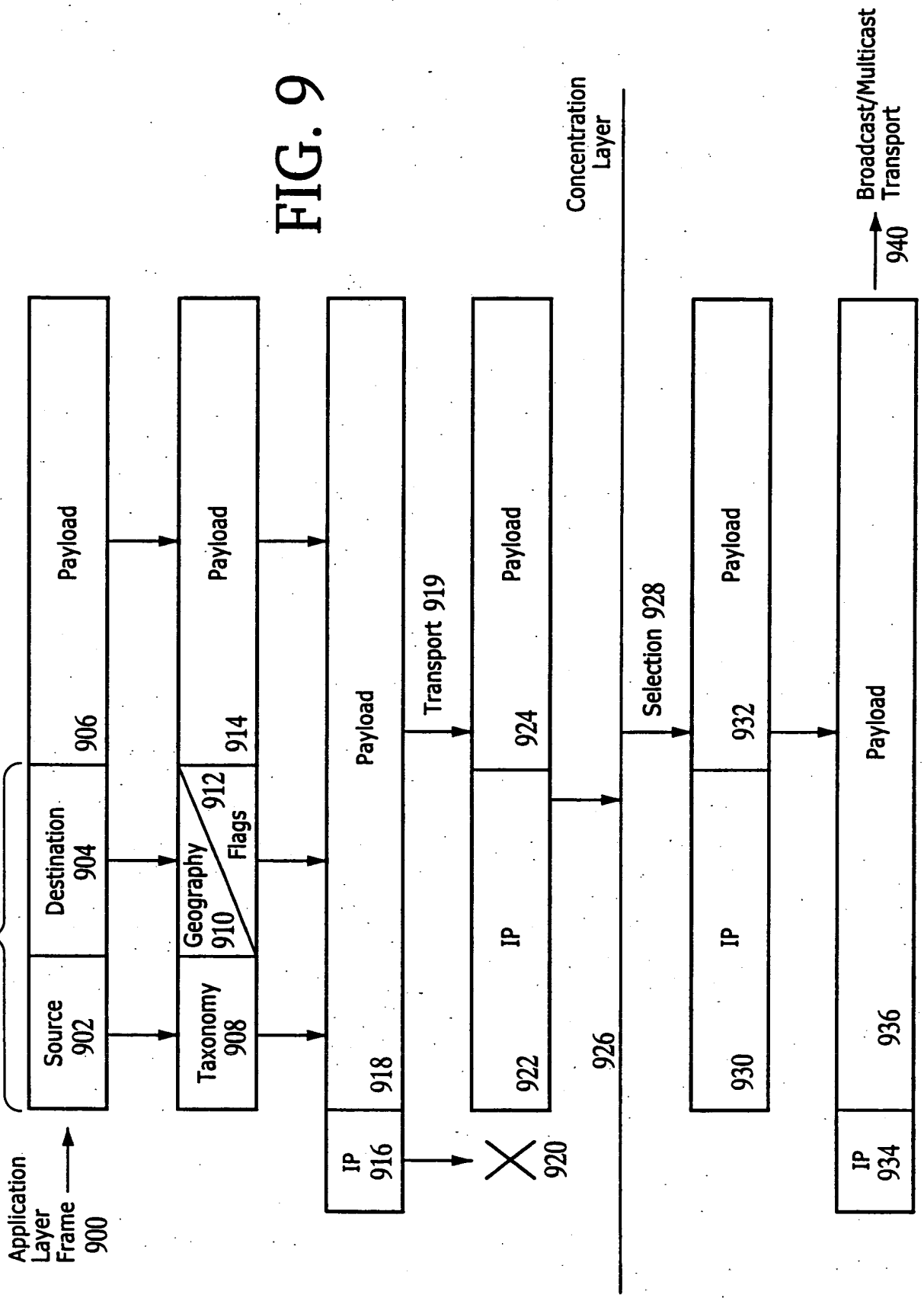
Application Layer Frame 900
IP Header
Source 902
Destination 904
Payload 906
Taxonomy 908
Geography 910
Flags 912
Payload 914
IP 916
Payload 918
Transport 919
X 920
IP 922
Payload 924
926
Concentration Layer
Selection 928
IP 930
Payload 932
IP 934
Payload 936
Broadcast/Multicast Transport 940

FIG. 9

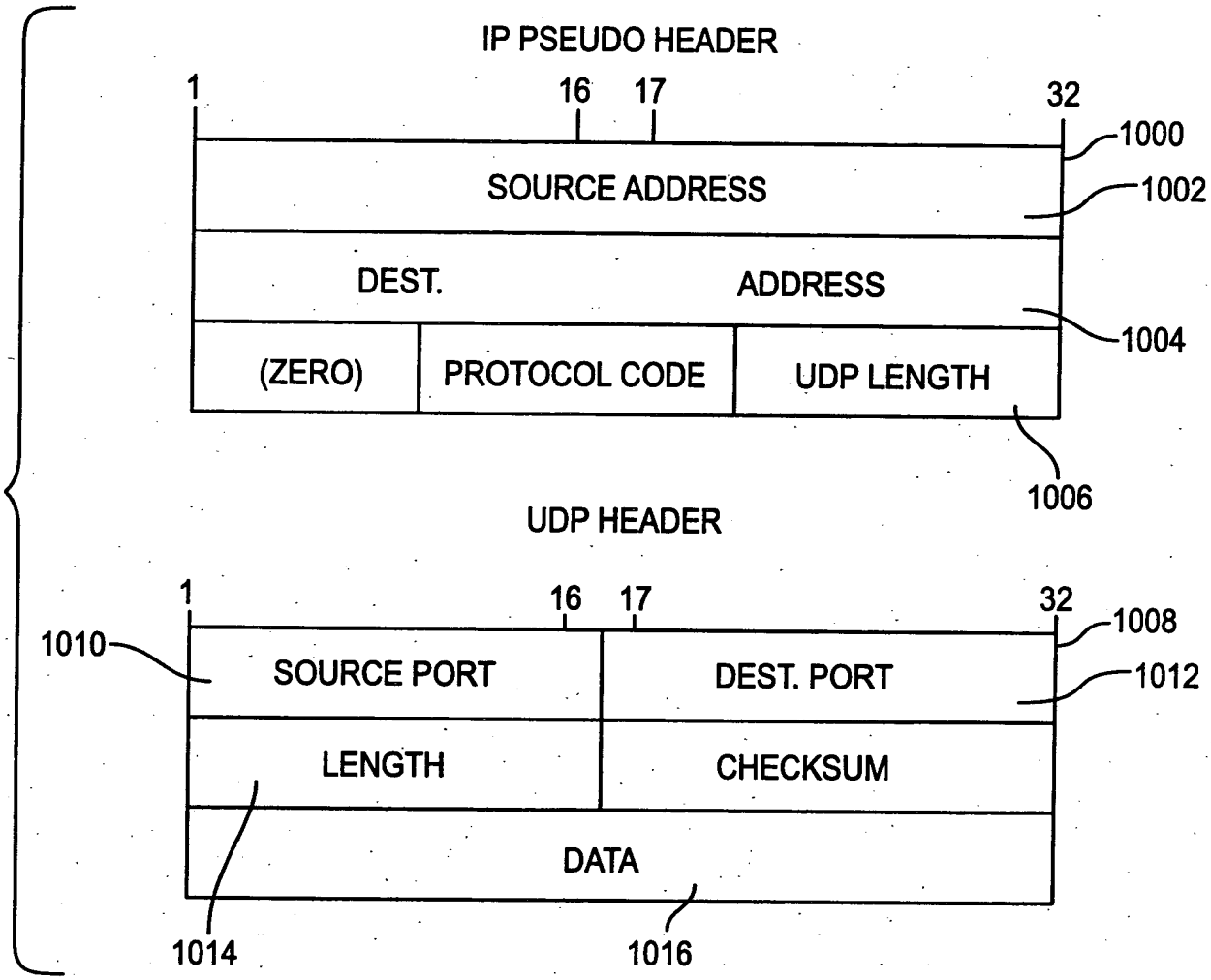
IP PSEUDO HEADER
1
16
17
32
1000
SOURCE ADDRESS
1002
DEST.
ADDRESS
1004
(ZERO)
PROTOCOL CODE
UDP LENGTH
1006
UDP HEADER
1
16
17
32
1008
1010
SOURCE PORT
DEST. PORT
1012
LENGTH
CHECKSUM
DATA
1014
1016

FIG. 10

255.100 = travel category
255.100.1 = travel.air topic
255.100.11 = travel.air.domestic sub-topic
255.100.111 = travel.air.domestic.american airlines

255.200 = retail
255.200.1 = consumer electronics
255.200.2 = clothing
255.200.3 = appliances
255.200.31 = " .washers
255.200.32 = " .dryers
255.200.33 = " .stoves
255.200.333 = retail.appliances.stoves.gas
255.200.333.3 = retail.appliances.stoves.gas.viking brand

FIG. 11

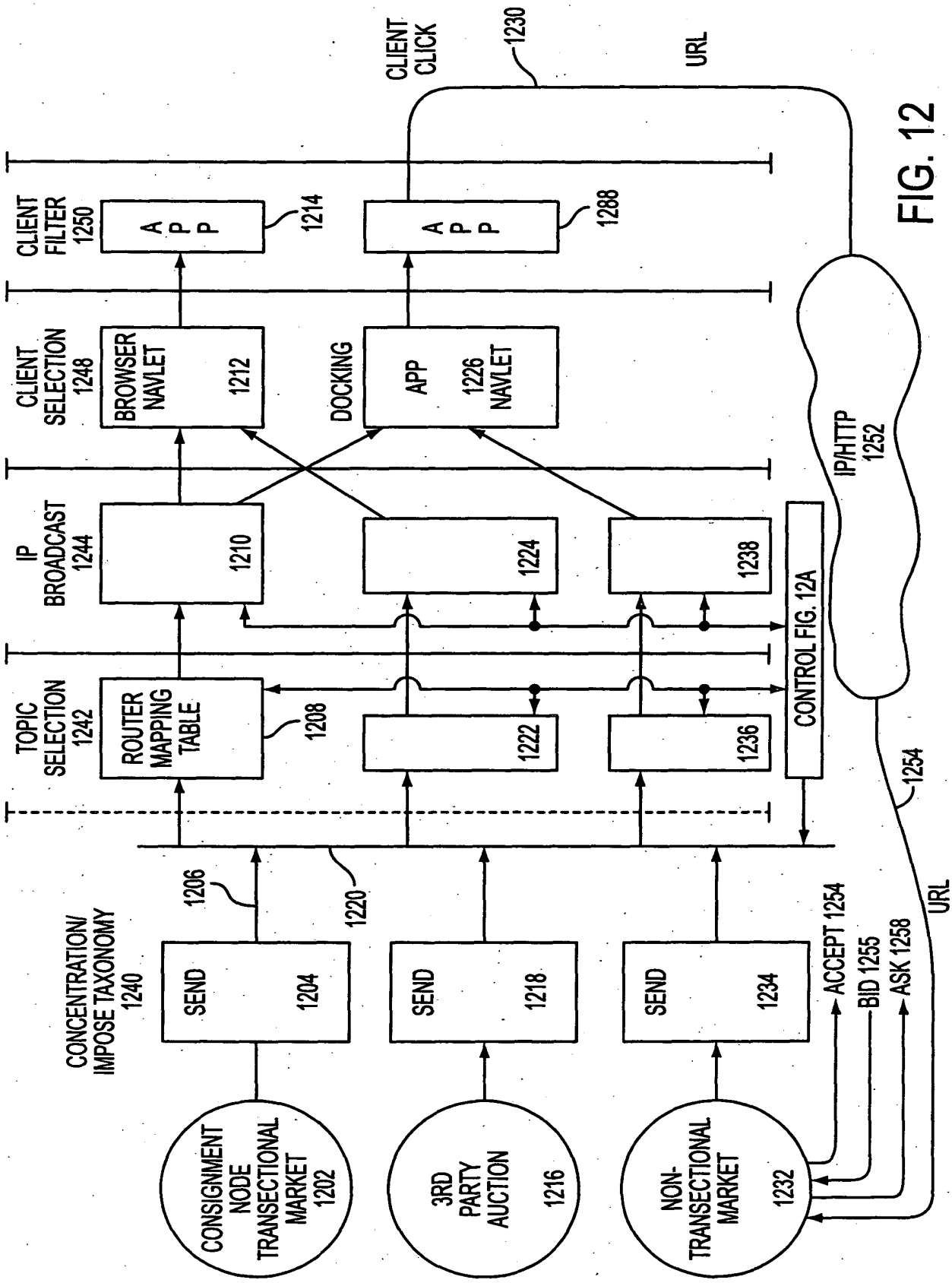
CLIENT CLICK
1230
URL
CLIENT FILTER 1250
APP
1214
APP
1288
CLIENT SELECTION 1248
BROWSER NAVLET
1212
DOCKING
APP
1226
NAVLET
IP BROADCAST 1244
1210
1224
1238
IP/HTTP 1252
TOPIC SELECTION 1242
ROUTER MAPPING TABLE
1208
1222
1236
CONTROL FIG. 12A
1254
URL
1206
1220
CONCENTRATION/ IMPOSE TAXONOMY 1240
SEND
1204
SEND
1218
SEND
1234
ACCEPT 1254
BID 1255
ASK 1258
CONSIGNMENT NODE TRANSECTIONAL MARKET 1202
3RD PARTY AUCTION
1216
NON-TRANSECTIONAL MARKET
1232

FIG. 12

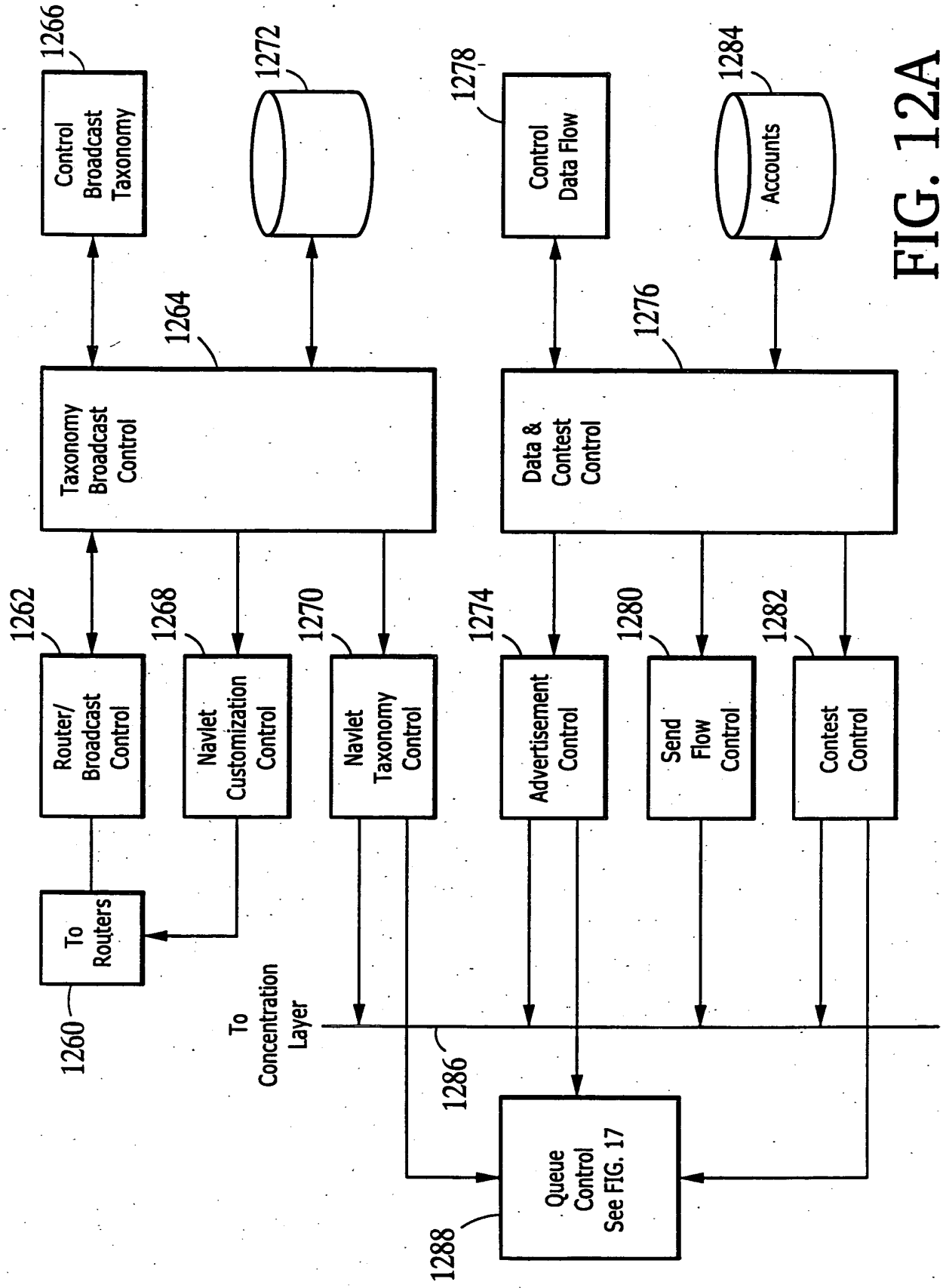
1266
Control Broadcast Taxonomy
1272
1278
Control Data Flow
1284
Accounts
1264
Taxonomy Broadcast Control
1276
Data & Contest Control
1262
Router/ Broadcast Control
1268
Navlet Customization Control
1270
Navlet Taxonomy Control
1274
Advertisement Control
1280
Send Flow Control
1282
Contest Control
To Routers
1260
To Concentration Layer
1286
Queue Control See FIG. 17
1288

FIG. 12A

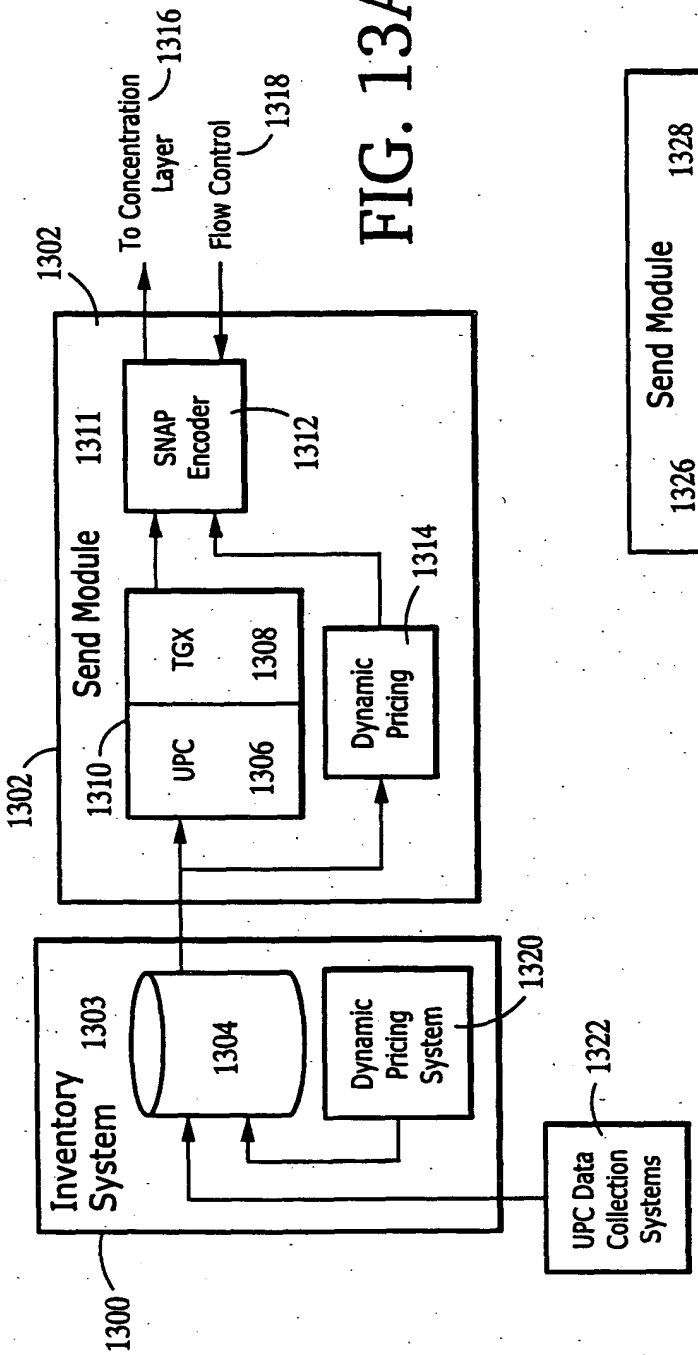

FIG. 13A

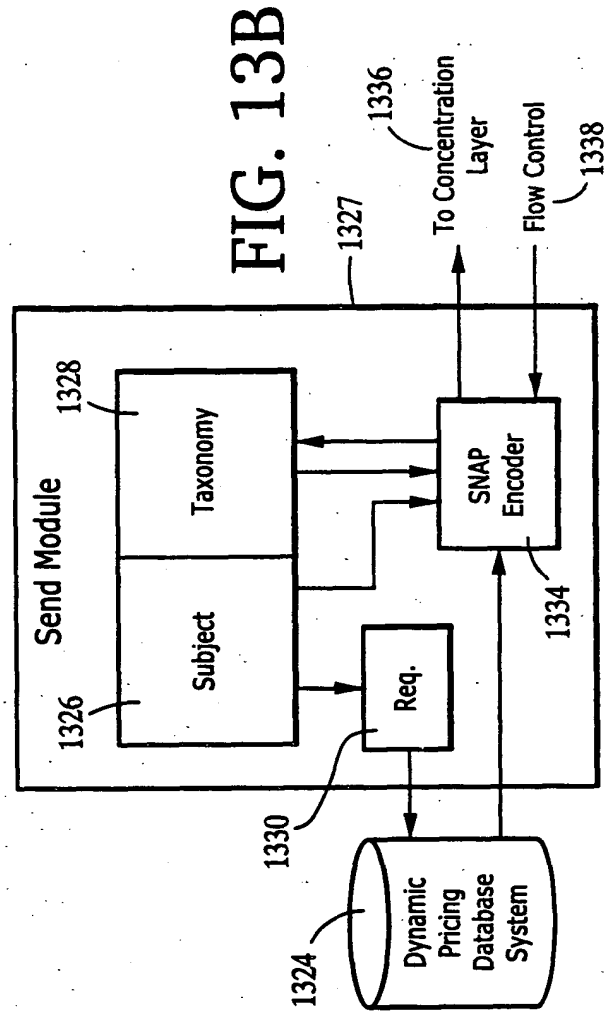

FIG. 13B

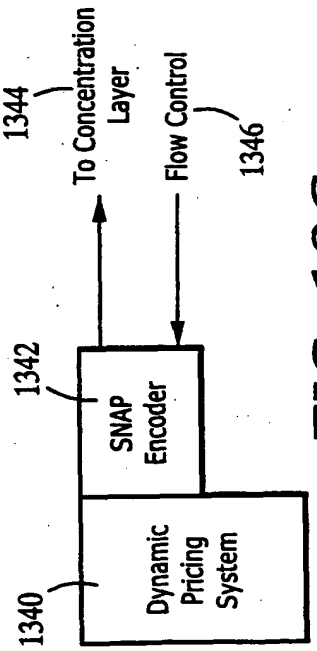

FIG. 13C

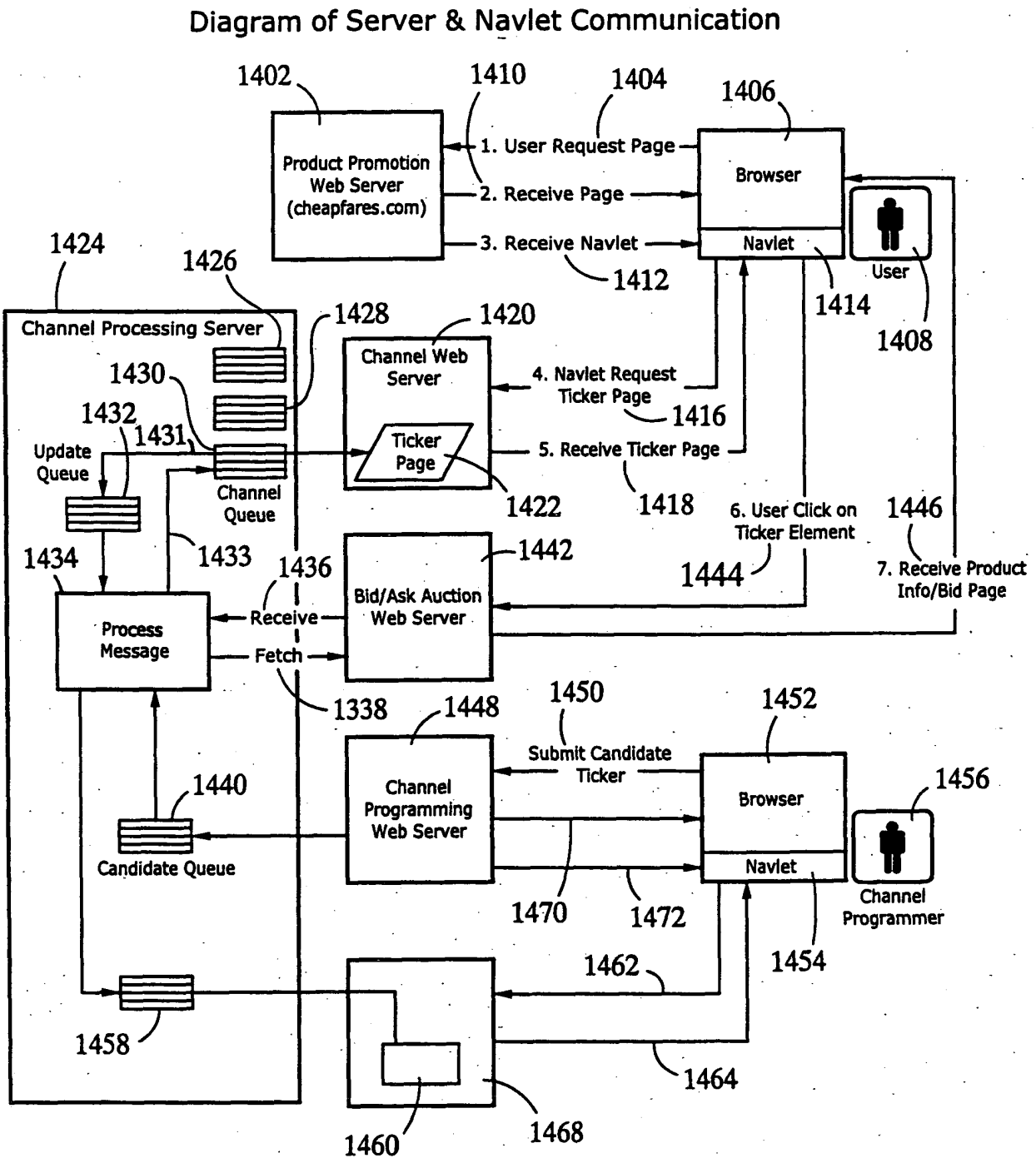
Diagram of Server & Navlet Communication
1402
1410
1404
1406
Product Promotion Web Server (cheapfares.com)
1. User Request Page
2. Receive Page
3. Receive Navlet
Browser
Navlet
User
1412
1414
1408
1424
1426
1428
1420
Channel Processing Server
Channel Web Server
1430
1432
1431
4. Navlet Request Ticker Page
1416
Update Queue
Ticker Page
5. Receive Ticker Page
Channel Queue
1422
1418
6. User Click on Ticker Element
1446
1434
1433
1436
1442
1444
7. Receive Product Info/Bid Page
Bid/Ask Auction Web Server
Process Message
Receive
Fetch
1338
1450
1452
1448
Submit Candidate Ticker
Channel Programming Web Server
Browser
1456
1440
Candidate Queue
Navlet
Channel Programmer
1470
1472
1462
1454
1458
1464
1460
1468

FIG. 14

Diagram of User Interaction with Web Site for Candidate Item Submission to the Ticker Server

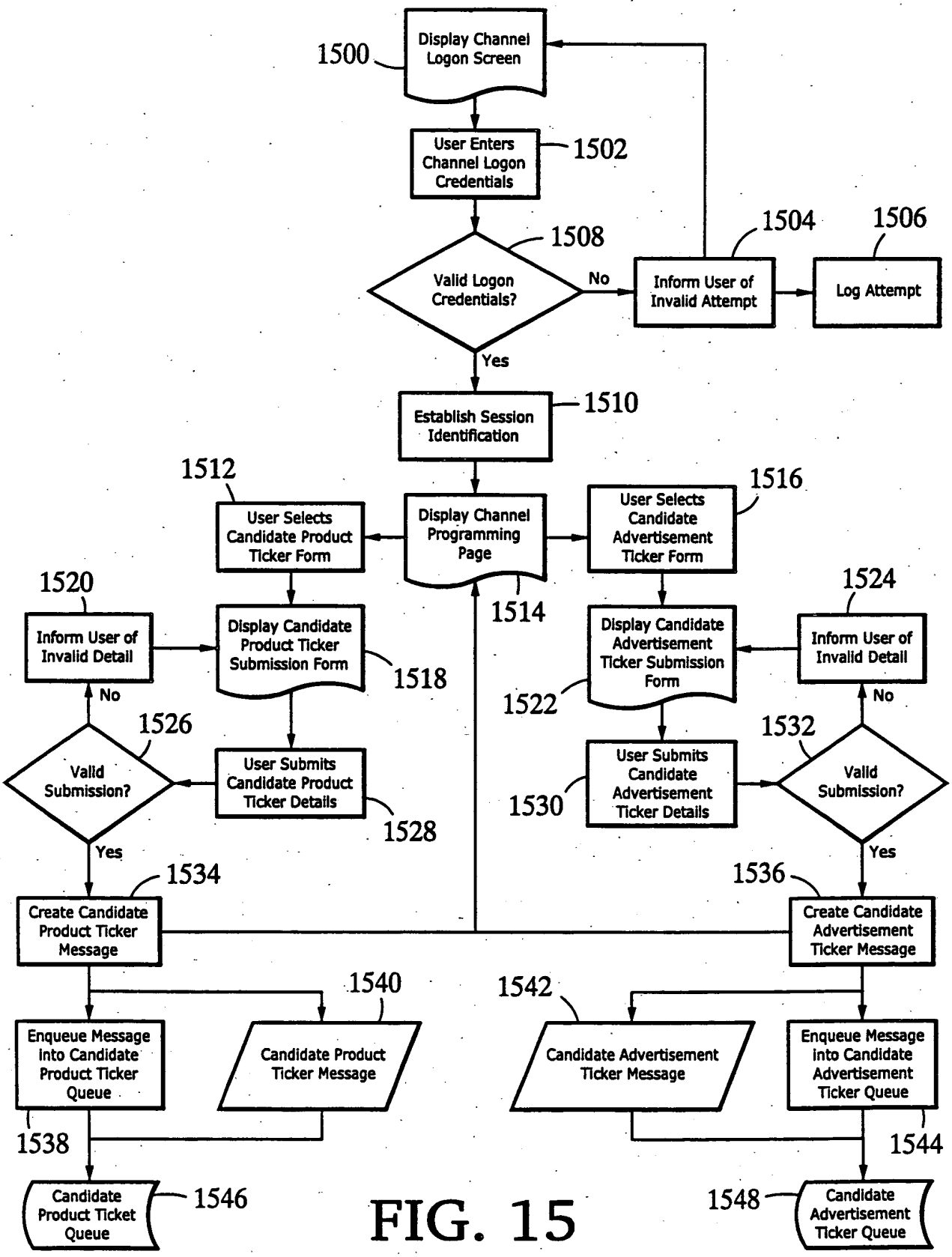

FIG. 15

Diagram for Processing Submitted Candidate Product Ticker Items

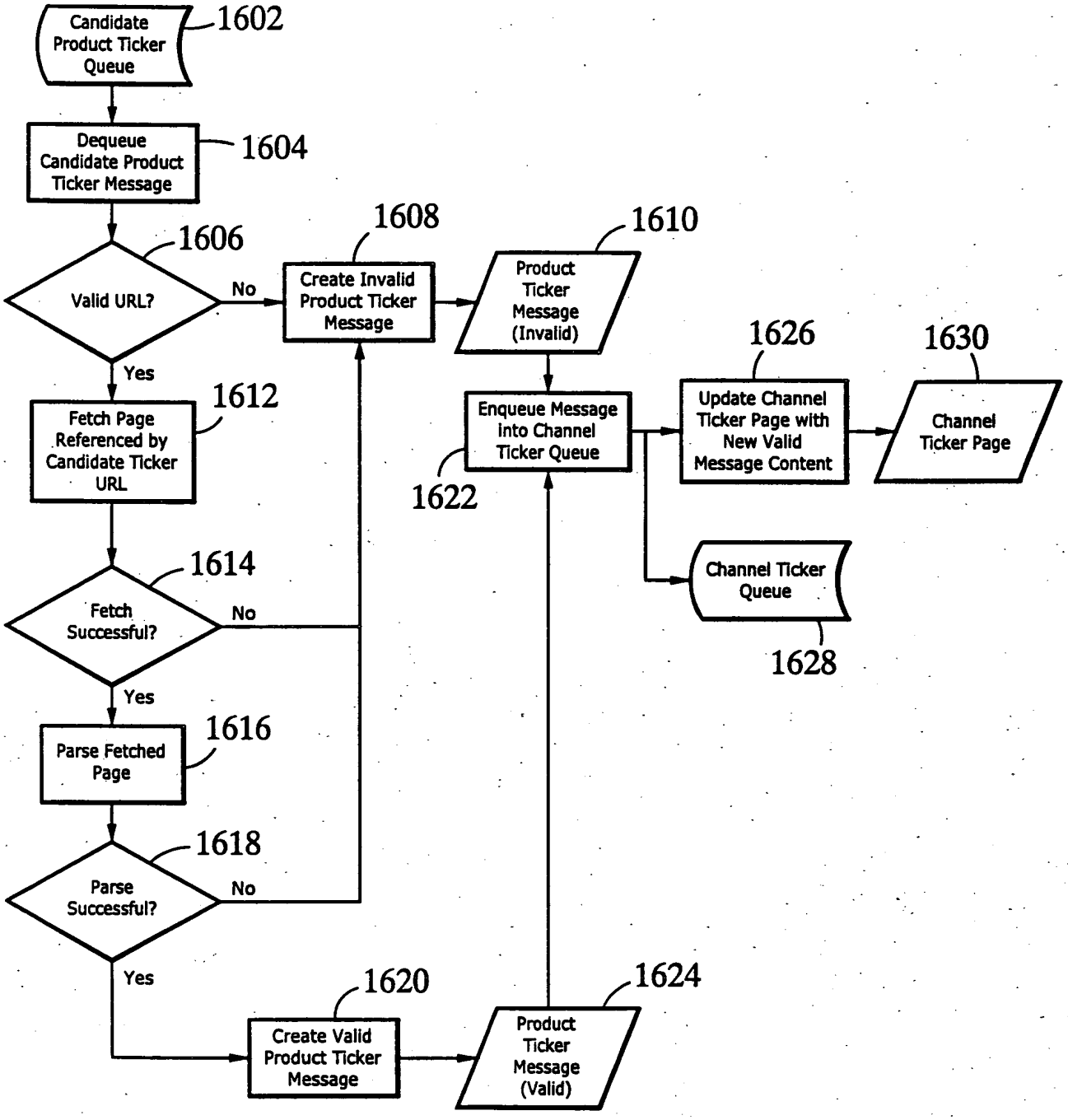

FIG. 16

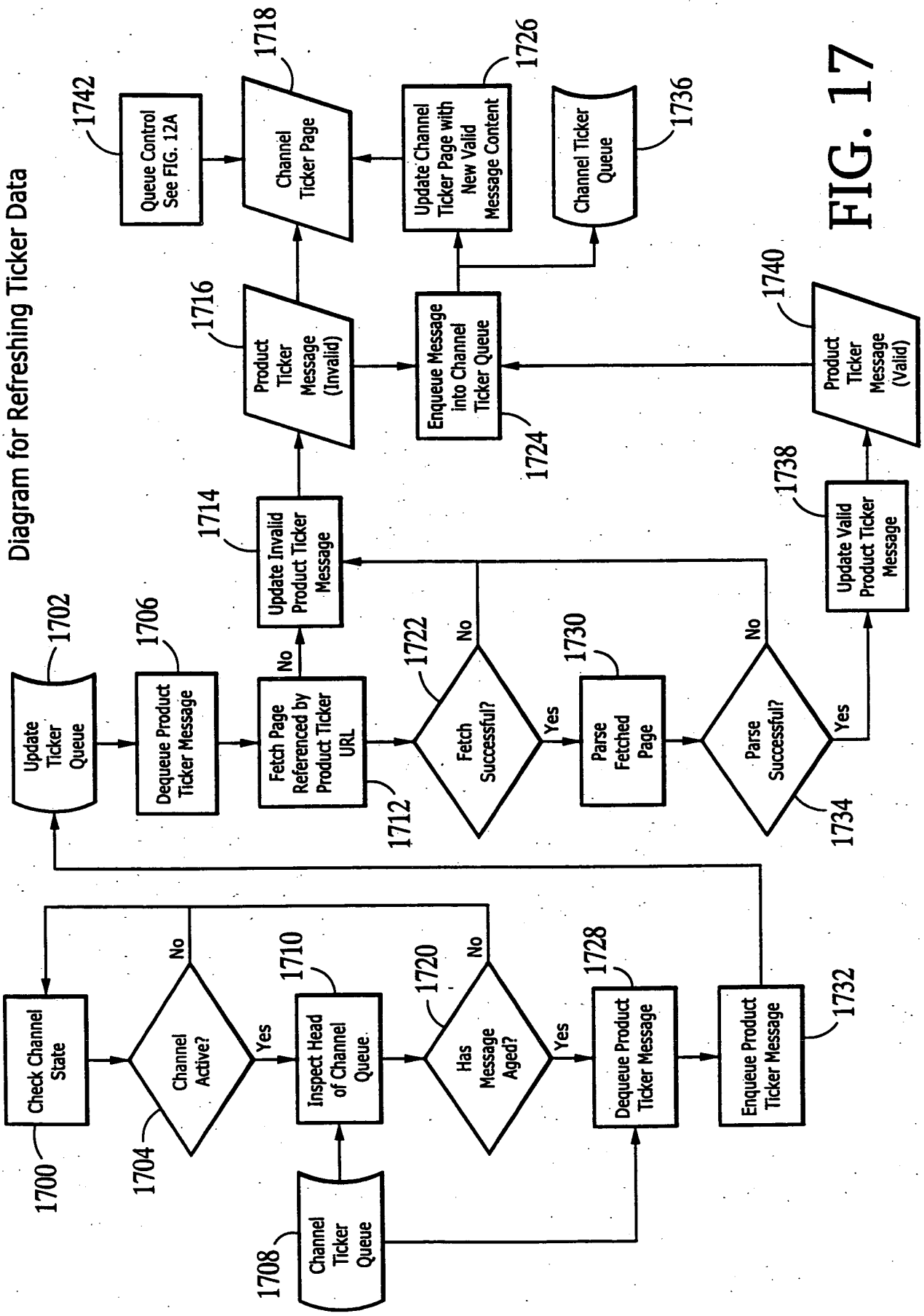
Diagram for Refreshing Ticker Data
Check Channel State
1700
Channel Active?
1704
No
Yes
Inspect Head of Channel Queue
1710
Has Message Aged?
1720
No
Yes
Dequeue Product Ticker Message
1728
Enqueue Product Ticker Message
1732
Channel Ticker Queue
1708
Update Ticker Queue
1702
Dequeue Product Ticker Message
1706
Fetch Page Referenced by Product Ticker URL
1712
No
Fetch Successful?
1722
No
Yes
Parse Fetched Page
1730
Parse Successful?
1734
No
Yes
Update Invalid Product Ticker Message
1714
Update Valid Product Ticker Message
1738
Product Ticker Message (Invalid)
1716
Product Ticker Message (Valid)
1740
Enqueue Message into Channel Ticker Queue
1724
Channel Ticker Page
1718
Update Channel Ticker Page with New Valid Message Content
1726
Channel Ticker Queue
1736
Queue Control See FIG. 12A
1742

FIG. 17

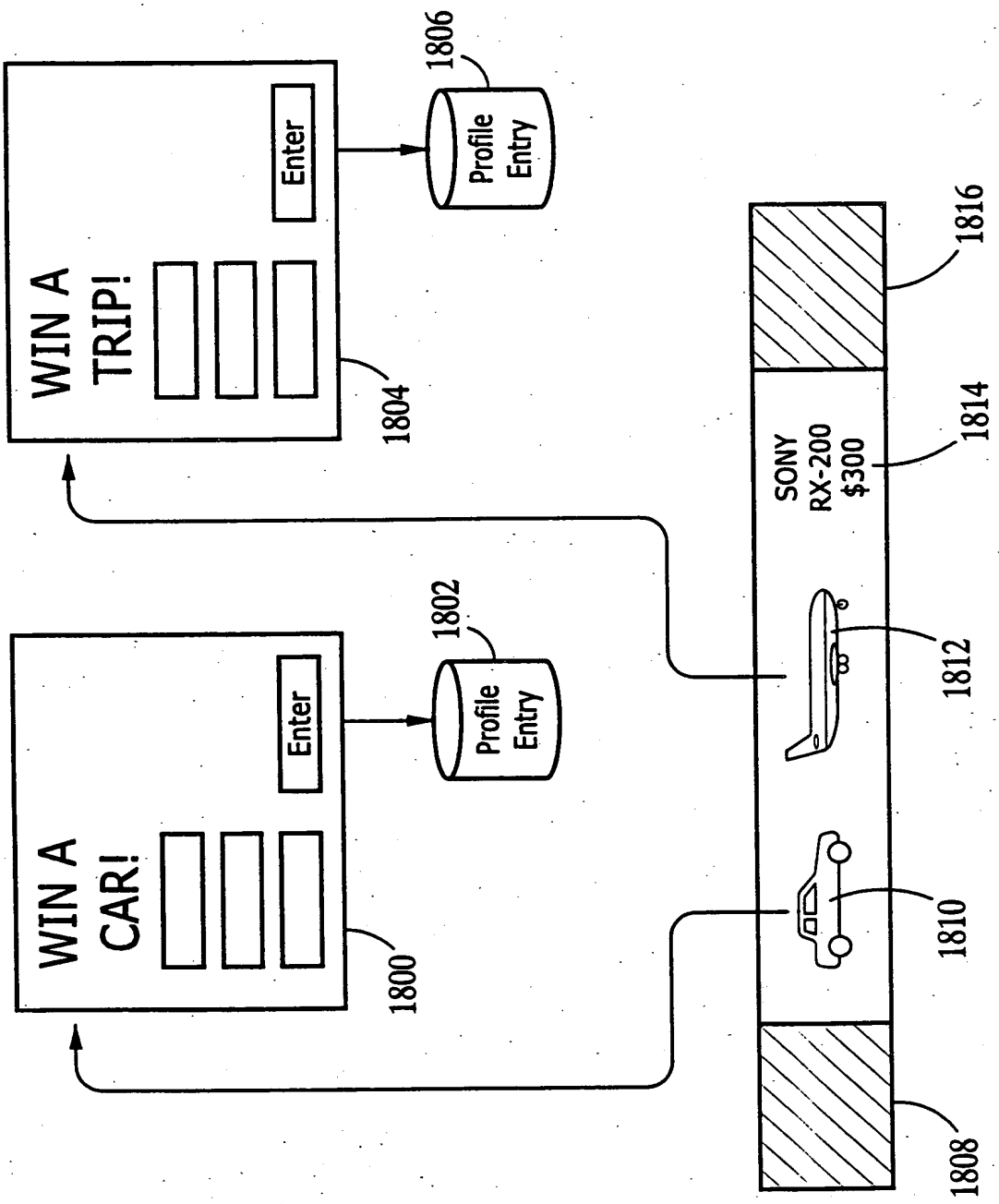
WIN A CAR!
Enter
Profile Entry
1802
1800
WIN A TRIP!
Enter
Profile Entry
1806
1804
SONY RX-200 $300
1816
1814
1812
1810
1808

FIG. 18

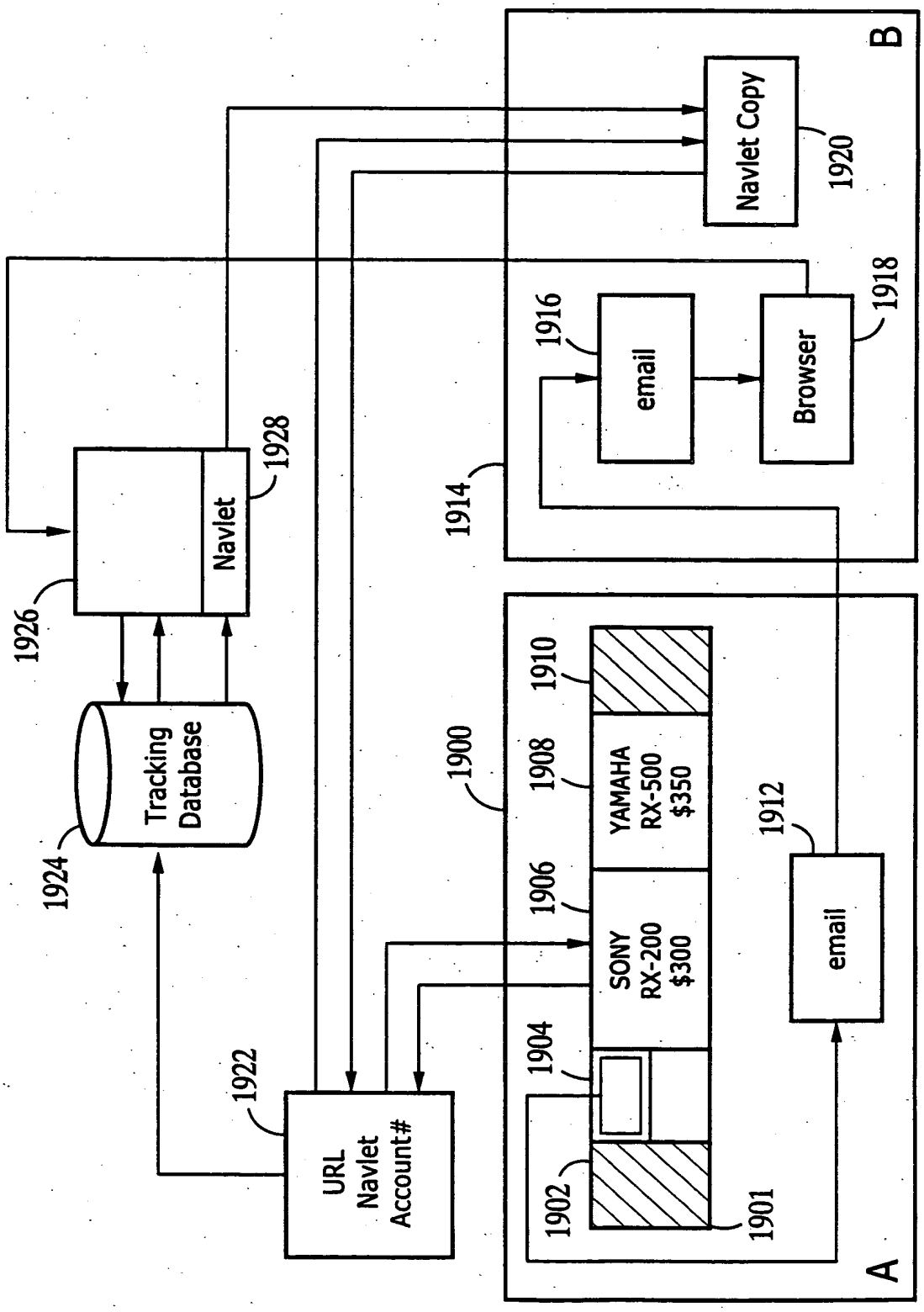
B
Navlet Copy
1920
1916
email
Browser
1918
1914
Navlet
1928
1926
Tracking Database
1924
1900
1910
1908
YAMAHA RX-500 $350
1906
SONY RX-200 $300
1912
email
1904
1902
1901
A
1922
URL Navlet Account#

FIG. 19